

## **REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and these remarks.

### ***I. Claim Status***

Claim 21 is cancelled presently, without prejudice or disclaimer. Claims 24-25 are amended and claims 26-32 are added. Upon entry of this response, claims 22-32 will be pending and subject to examination on the merits.

Claims 24 and 25 are amended to conform to typical U.S. practice. Support for claims 26-32 are evident throughout the specification. Thus, support for claim 26 can be found on page 10, lines 12-25, page 12, lines 3-8, and page 15, line 21 – page 16, line 17, support for claims 27-28 can be found on page 11, line 17 – page 12, line 2, support for claims 29-30 can be found on page 15, lines 16-20 and support for claims 31-32 can be found on page 16, lines 18-29. No impermissible new matter is added, therefore.

### ***II. Drawing Objections Should Be Withdrawn***

The drawings are subject to objection because Figures 2 and 7 are said to be of insufficient quality to identify any features. Applicants submitted a Petition under 37 C.F.R. § 1.84 to Accept Color Drawings on June 14, 2010. Figures 2 and 7 were some of the color drawings provided with the Petition.

As was explained in a phone call to Examiner Lipitz January 26, 2011, no amendments need to be filed to address the instant drawing objection, given an acceptance by the Office of the figure versions filed with the Petition. Applicants presently await Office action to grant the Petition.

### ***III. The 35 U.S.C. § 112 Claim Rejections Should Be Withdrawn***

Claims 24 and 25 stand rejected for an alleged lack of “written description” support in the specification.

Regarding claim 24, the examiner states that “Applicant recites generating and transmitting the welding light through the optical fiber while the sheath and fiber are pulled away from the hole. Applicant has NO support for this recitation in the original disclosure” (action at 4). Yet, the specification at page 18, in lines 20-24, provides express support for this recitation. In particular, the the application states there that, “[w]hen the welding laser is radiated onto the sheath removal hole, the sheath inserted in the vessel wall needs to be pulled out **and** it may be pulled along with the fiber” (emphasis added).

Regarding claim 25, the examiner contends that “it is unclear from the disclosure how this step would be performed. How do the elements [attach] to one another? What elements enable them to be fastened together?” (action at 4). Again, the above-discussed passage from the specification answers these questions. Thus, the application there teaches that, “at the time when it is confirmed that the position of the end of the fiber is in blood, **the fiber and the sheath may be immovably fastened together** and the sheath may be pulled out so that the sheath and the fiber is pulled out at the same time” (emphasis added). So informed, the skilled person surely would have known of standard surgical accoutrements, such as a clamp, that could fasten fiber and sheath together immovably.

Claims 21, 24, and 25 are rejected separately for alleged indefiniteness. Without conceding the propriety of any of the rejections, applicants have chosen to advance prosecution by cancelling 21 and amending claims 24 and 25, as indicated above, thereby obviating the stated grounds for rejection.

#### ***IV. The 35 U.S.C. § 103 Claim Rejections Should Be Withdrawn***

Claims 22-25 are rejected over U.S. Patent No. 5,725,522 (“Sinofsky”) in view of U.S. Published Application 2005/0131400 (“Hennings”). Claim 21 is rejected over Sinofsky and Hennings as evidenced by U.S. Patent No. 4,913,142 (“Kittrell”). Since claim 21 is cancelled presently, the latter rejection is moot.

The claimed method entails “monitoring the amount of light backscattered from tissue in the subject to ascertain when there is a rise in intensity of backscattered light that is absorbed into the tissue in the subject, where such rise is indicative that the tissue that

surrounds the distal end of the element is a blood vessel wall.” This approach ensures that the type of tissue that surrounds the distal end of the optical fiber is determined by detecting the amount of backscattered light. Thus, the monitoring step does not involve the visualization of structures *in vivo*.

The examiner contends that, “since the monitor [of Sinofsky] provides a visual display to the user, it would have been obvious to a skilled artisan to check the display prior to welding the tissue” (action at 6). In fact, Sinofsky teaches “a video monitor 24 which is adapted to provide a visual display of the biological region at the tip of the endoscope to the user. The system and monitor 24 can also be designed to provide the user with data on progress of the crosslinking reaction” (col. 5, line 67 – col. 6, line 5).

Pursuant to Sinofsky, therefore, a user views a video monitor 24 to see the region of the body where a surgical procedure occurs; in other words, the user views the structures *in vivo* on the monitor. Sinofsky fails to teach or suggest, however, that the video monitor 24 or any other element monitors the amount of light backscattered from tissue in the subject, thereby to ascertain any rise in intensity of the backscattered light that is absorbed into the tissue. As presently recited, such a rise in intensity indicates that tissue surrounding the distal end of the first or second optical fiber, as the case may be, is a blood vessel wall.

Henning cannot cure these deficiencies of Sinofsky. This is so even if one assumes, *arguendo*, “that the concept of withdrawing an emitting fiber optic was known in the prior art” and that the secondary reference teaches “venous closure methods/apparatuses that ... provid[e] a laser (102) delivered via a fiber optic catheter (300) and a pull-back device (104) for motorized withdrawal of the fiber optic during irradiation of the vessel wall.”

Accordingly, the alleged *prima facie* case against claim 24 cannot stand, validating its patentability. Dependent claims 22-23 and 25 likewise are patentable over the art of record.

#### ***V. New Claims 26-32 Are Allowable***

Claims 26-32 are added. Claims 26-32 depend from claim 24 and likewise are patentable over the art of record, for reasons detailed above.

### CONCLUSION

Applicants submit that this application is in condition for allowance, and they request an early indication to this effect. Examiner Lipitz also is invited to contact the undersigned directly, should he feel that any issue warrants further consideration.

Respectfully submitted,

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**The Commissioner is hereby authorized to charge any additional fees, which may be required under 37 C.F.R. §§ 1.16-1.17, and to credit any overpayment to Deposit Account No. 19-0741. Should no proper payment accompany this response, then the Commissioner is authorized to charge the unpaid amount to the same deposit account. If any extension is needed for timely acceptance of submitted papers, then applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of the relevant fee(s) from the deposit account.**